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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,517	11/28/2001	Masao Ochi	4277	3531

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EXAMINER

SAVAGE, MATTHEW O

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,517

Applicant(s)

OCHI ET AL.

Examiner

Matthew O Savage

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5-5-04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3-1-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiavo et al in view of Kosar.

With respect to claim 7, Schiavo et al disclose a filtration apparatus (see FIG. 1) including a housing head 30 having an inlet 32 and an outlet 34, a housing bowl 50 detachably attached to the housing head and surrounding a filter cartridge 30 to define a channel wall, and clamping means 60 exerting force to press the housing head and housing bowl against each other to clamp the housing head and housing bowl together, a releasable clamping device 60 that exerts a force to press the housing head and bowl against each other to clamp the housing head and bowl together, the housing head having a ring shaped first sealing portion 56 facing the housing bowl (see FIG. 4), the housing bowl having a ring shaped second portion 36 that abuts directly against the first sealing portion when the clamping device exerts the force to press the housing head and bowl against each other. Schiavo et al fail to specify the details of one of the first and second sealing portions as being a protrusion and the other of the sealing portions a recess. Kosar discloses first and second sealing portions (see FIG. 1) including a protrusion 4 and recess 3, with respect to an axial section along a central axis line of the

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housing head 5 and bowl 1, the protrusion having a radially inner arcuate curved protrusion surface and a radially outer arcuate curved protrusion surface, the recess being bounded by a radially inner recess wall portion and a radially outer recess wall portion, the radially inner arcuate curved protrusion surface pressing against the radially inner recess wall portion to form a first inner circular seal 7, and the radially outer arcuate curved protrusion surface presses against the radially outer recess wall portion to form a second outer circular seal 7, the circular seals 7 being formed at locations within a depth of the recess displaced away from terminal outer free edges 2 of the recess wall portions. Kosar suggests that such a sealing configuration is simple in construction (see lines 53-57 of col. 1). It would have been obvious to have modified the apparatus of Schiavo et al so as to have included the sealing arrangement as suggested by Kosar in order to simplify construction of the filter by eliminating the need for additional o-ring seals.

With respect to claim 8, Kosar discloses the radially inner and outer arcuate curved protrusion surfaces as being portions of an overall semi-circular curved sectional shape of the protrusion with respect to the axial section (see FIG. 1).

Concerning claims 9 and 10, Kosar fails to specify the radially inner and outer arcuate curved protrusion surfaces and recess wall portions as being portions of an overall semi circular curved sectional shape of the protrusion with respect to the axial section in the case of FIG. 1, however, such a modification is considered nothing more than one of numerous shape configurations one skilled in the art would find obvious in order to achieve line of sealing contact shown in the FIG. 1 since Kosar discloses

alternative shapes for the projection and recess (see In re Dailey, 149 USPQ 47 (CCPA 1976)).

As to claim 11, Kosar eliminates the need for any o-ring seals between the head and bowl.

As to claim 12, Kosar discloses the recess and protrusion being pressed against each other such that the recess as being pressed against each other, the recess being capable of being increased in width elastically and having resilience allowing the recess to cooperate with the protrusion to provide the seals (see lines 34-41 of col. 1).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schiavo et al in view of Kosar as applied to claim 1 above, and further in view of Ashelin et al.

Concerning claim 13, Schiavo et al disclose the housing head and housing bowl as being formed of a fluororesin (e.g., TEFLON, see lines 25-28 of col. 3), but fails to specify the filter cartridge as being formed of a fluororesin. Ashelin et al disclose a filter cartridge formed of a fluororesin (see lines 21-42 of col. 4) and suggests that such a filter is suitable use in the electronics industry (see lines 13-17 of col. 1). It would have been obvious to have modified the combination suggested by Schiavo et al and Wepler so as to have included a filter cartridge formed of a fluororesin as suggested by Ashelin et al in order to provide a filter assembly suitable for use in the electronics industry.

Applicant's arguments filed 5-5-04 have been fully considered but they are not persuasive.

Applicant's argument that the FIG. 12 embodiment of Kosar fails to disclose the limitations added to claim 7 is noted, however, the limitations are clearly met in the case of the FIG. 1 embodiment of Kosar.

Applicant argues that one skilled in the art would not replace the plurality of o-rings in the FIG. 7 embodiment with the sealing arrangement disclosed by Kosar, however, it is held that one skilled in the art would have made such a modification in order to simplify assembly of the housing parts by eliminating additional sealing members in the form of o-rings because Kosar clearly teaches alternate sealing arrangements for two part housings that do not require additional sealing members.

Applicant argues that Kosar fails to include a force-generating component, however, it is held that Kosar clearly discloses a force generating component in the form of a threaded connection 9, 10 shown in FIG. 1.

Applicant argues that there is no suggestion in the prior art to form the housing parts from a fluororesin, however, it is held that one skilled in the art would form the housing parts from a fluororesin in order to optimize chemical resistance of the filter housing for a particular application since Kosar discloses forming housing parts from plastic and because Schiavo et al discloses forming housing parts from a fluororesin which is a specific type of plastic.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Matthew O Savage
Primary Examiner
Art Unit 1724

mos
July 14, 2004